



# GS SERIES

## ROTARY SCREW COMPRESSORS

VARIABLE SPEED DRIVE • 20-50HP/15-37KW



- *e*NERGY SAVING
- *e*XCEPTIONALLY QUIET
- *e*NVIRONMENTALLY SMART

POWERED BY **eCOOL**  
TECHNOLOGY

*e*NERGY SMART  
**10-YR** AIR END WARRANTY

# VARIABLE SPEED DRIVE (VSD)

## GS SERIES SAVES YOU MONEY

### INTELLIGENT VSD TECHNOLOGY MAXIMIZES YOUR *e*ENERGY SAVINGS

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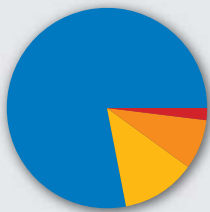
When it comes to energy savings, the smart decision is the GS Series from FS-Curtis. With its VSD that allows you to match your energy usage to current system demands, our GS Series air compressors help you maximize energy efficiency.

In fact, when you compare the life cycle costs of owning a standard air compressor with those of our GS Series with VSD, you'll soon see that the GS Series energy consumption is energy smart.

FS-Curtis' VSD also allows you to save energy by meeting changing air demands, eliminating the need to overpressure the system. The GS Series VSD compressors automatically adjust to varying airflow demands. Its soft starting capability also reduces inrush current requirements and allows unlimited starts and stops of the motor without stressing the motor – or your supply system.

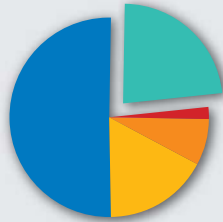
#### GS SERIES WITH VSD LIFE CYCLE COST OVER 5 YEARS

Without VSD



- Installation
- Maintenance
- Investment
- Energy

VSD



- Installation
- Maintenance
- Investment
- Energy
- Energy Savings

#### *DemandSmart Drive*

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featuring:

DemandSmart™ *e*ENERGY INTELLIGENCE

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**DemandSmart™**  
ENERGY MANAGEMENT SYSTEM



# ADVANTAGES and SAVINGS

## COOL, QUIET, EFFICIENT OPERATION

### Intelligent eCOOL® Design:

- Critical parts located in coolest area for greater reliability
- Greater efficiency reduces life cycle cost
- Enclosure filter offers cleaner cooling air

### Direct Drive:

- Coupled to airend without gears, eliminates vibration and reduces noise
- No power loss for greater energy savings
- No wearing parts, reduced maintenance for more cost savings

### Vertical Oil Separation:

- Utilizes centrifugal force to force oil out of air
- Extremely low pressure loss
- Consistently low residual oil carryover (1-2 ppm)

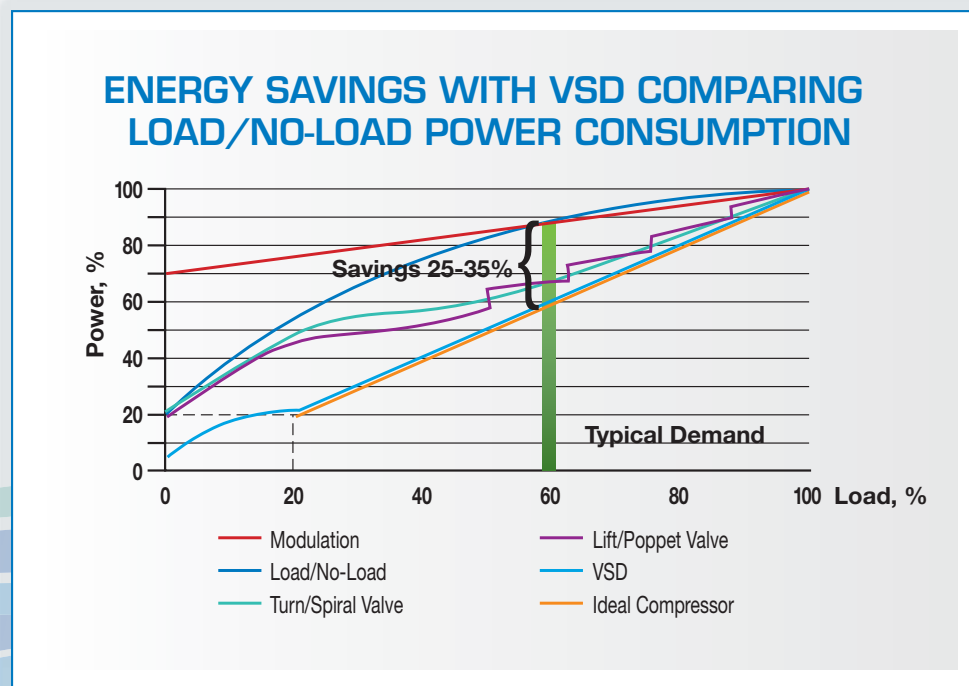
### VSD Energy Savings:

- Matches supply capacity to fluctuating demand
- Soft starting allows unlimited starts and stops
- Lower motor speeds reduce noise levels, extends motor life and saves energy

## INTEGRATED VARIABLE SPEED DRIVE

- With no need for gears or belts, our VSD offers faster response and greater operational efficiency
- The VSD's lower motor speeds help reduce noise levels
- Its ability to match its operating speed with changes in demand helps the VSD reduce wear and tear on equipment
- With Demand Smart™ technology, the VSD enhances quality by stabilizing air pressure at 0.1 bar increments
- Automatic protective features with built-in harmonic filtration in the drive protect the unit from: low line voltage, loss of a phase in power supply, high temperature and high pressure. These built-in protective features eliminated the need to source additional corrective devices.

Advanced adaptive service advisors optimize the compressor and motor service to reduce your operating costs



# THE POWER of *e*COOL

## THE POWER of *e*COOL



Experience the power of



This exclusive, environmentally friendly technology maximizes cooling airflow to offer greater energy efficiency, improved reliability and extended service life.

### Energy Saving:

- FS-Curtis' exclusive eCOOL® Technology maximizes energy efficiency by providing improved cooling of the main drive motor and other critical components. These cooler operating temperatures in turn, help deliver better volumetric and electrical efficiency. This makes our GS Series one of the most energy efficient compressors on the market today.

### Environmentally Friendly:

- Along with cooler operating temperatures and extended service life, FS-Curtis' exclusive eCOOL® Technology delivers improved compression and electrical efficiency for smoother, more environmentally friendly operation.

### Economical Operation:

- The cooler operational temperatures available with FS-Curtis' eCOOL® Technology allows the intake of cooler, denser air thus increasing the compression efficiency of our GS Series.

## THE INTELLIGENTLY DESIGNED GS SERIES WITH EXCLUSIVE eCOOL TECHNOLOGY – THE COOLEST AIR COMPRESSOR RUNNING

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The Global Series from FS-Curtis is the very epitome of cool. **FS-Curtis offers the revolutionary eCOOL® Technology** that combines smart compressor layout and intelligent component selection to provide a cooler airflow that minimizes the impact of high operating temperatures on compressor efficiency and reliability. So you can count on our cooler running GS Series to deliver the superior performance, longer life and exceptional energy efficiency you've been looking for.

### Extended Service Life:

- By providing cooler airflow and shielding heat-sensitive components, FS-Curtis' eCOOL® Technology helps reduce thermal stress and provide up to a 50% longer service life for motors, electrical components and a 30 to 50% longer service life for bearings, hoses and seals.

### Enhanced Air Quality:

- The lower operating temperatures of our GS Series help provide better oil separation efficiency, which leads to less residual oil in the compressed air. Washable cabinet filters pre-clean the cooling and intake air to prevent contamination inside the compressor, which helps maintain high cooling efficiency.

### Exceptionally Quiet:

- With fewer moving parts, our GS Series provides heavy-duty performance with less vibration and noise. Working with a compressor that operates more quietly helps your employees keep their cool, too.

# LAYOUT and DESIGN FEATURES

## FOUR DISTINCT THERMAL ZONES



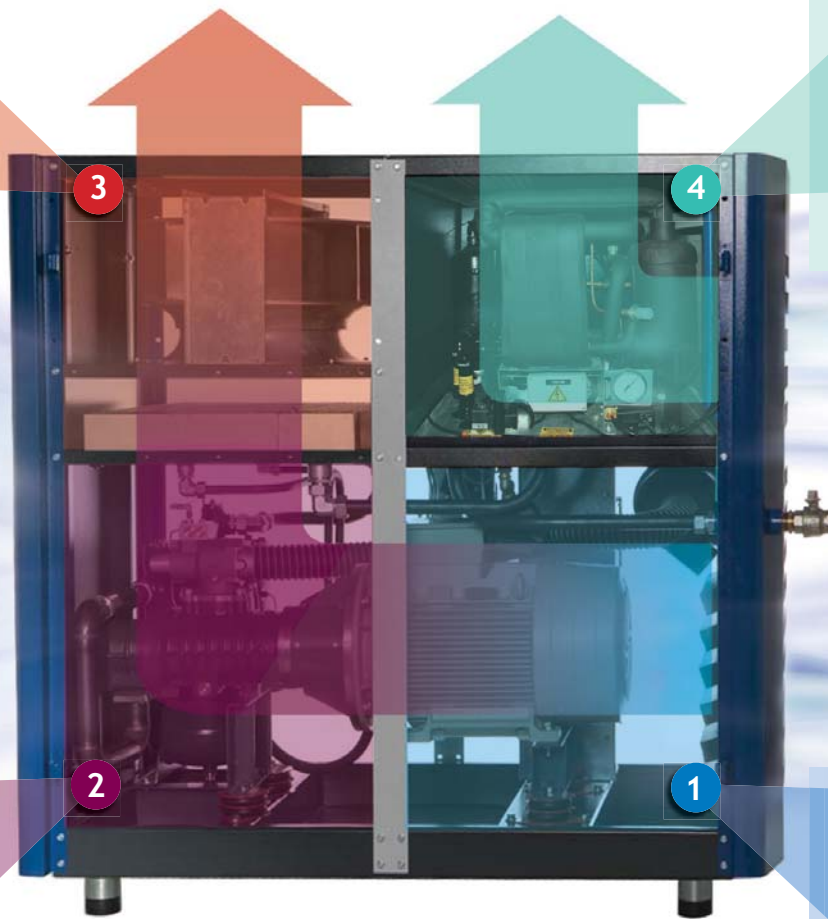
### COOLING MODULE:

- Radial Fan and Highly Efficient Combi-Cooler
- Air Duct Connection
- Chimney Effect Cooling



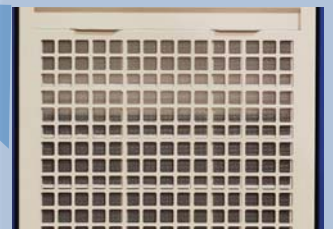
### AIR TREATMENT MODULE:

- Refrigerated Air Dryer
- 2 Moisture Demisters
- Independent Cooling for +38° F Dew Point
- Standard Integrated Bypass System



### COMPRESSOR MODULE:

- Aired
- Oil Separator
- Direct Drive
- No Gears



### COLD AIR INTAKE MODULE:

- Main Drive Motor
- Air Intake Filter
- Control Panel and Variable Speed Drive (VSD)
- Cabinet Filter

POWERED BY **eCOOL**  
TECHNOLOGY

## FEATURES

FS-Curtis' Global Series is more than just the hardest working compressor on the market today; it is also one of the easiest to work with. Thanks to an exclusive list of features designed to make it one of the most popular pieces of equipment on the floor of your operation.

The optimized design of our GS Series offers a completely integrated package, purpose-built to provide improved reliability and efficiency without the need for add-on components. Its clean lines and intelligent layout provide a clean unobstructed airflow that utilizes the chimney effect to provide efficient thermal cooling with no hot spots even after the compressor has stopped.

- Intelligent design provides advanced, highly efficient machine layout
- Intakes air from the coolest area eliminating air preheating
- Air flows evenly from the bottom to the top with no hot spots
- Highly efficient radial cooling fan for superior flow and energy savings

### Engineered For Quiet Operation:

- With 30% less moving parts, our GS series is designed with nylon laminated sound insulation, air intake attenuators and a vibration-damped sub-frame with double dampeners made to deliver quieter operation.

### Unsurpassed Quality:

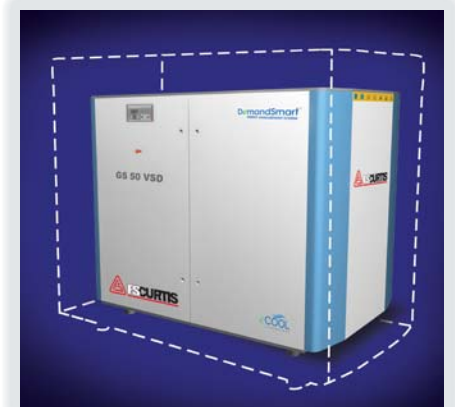
- FS-Curtis designs, develops and maintains the strictest quality control over our entire manufacturing process, utilizing all our global resources to deliver a world-class product.

### Easier To Service:

- The GS Series is uniquely designed to allow most routine maintenance to be performed in less than 30 minutes. With all parts easily accessible from the front side, the GS Series eliminates unnecessary downtime and increases your overall productivity.

### Small, Compact Footprint:

- The compact, intelligent design of our GS Series occupies a significantly smaller footprint than compressors offering similar horsepower. So it takes up less room on your factory floor, reduces your freight and installation costs and attaches easily to your existing air ducts.



With their intelligently designed components, long list of value-added features, energy saving variable speed drive and revolutionary eCOOL® Technology, FS-Curtis' GS Series compressors are delivering the kind of performance and energy savings you want and need. Now, is that cool or what?

# WORLD-CLASS PRECISION

## WORLD-CLASS PRECISION COMPONENTS

### THE FS-Curtis GLOBAL SERIES OFFERS YOU WORLD-CLASS COMPONENTS AND FEATURES

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Unlike other compressors that are built with off-the-shelf components, our GS Series was designed and built from the ground up to provide maximum performance and energy savings. Each of the carefully designed components in our GS Series compressors is there to offer you the highest level of reliability and efficiency.



*Optional Integrated Dryer*

### INTEGRATED REFRIGERATED DRYER

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#### Component Features:

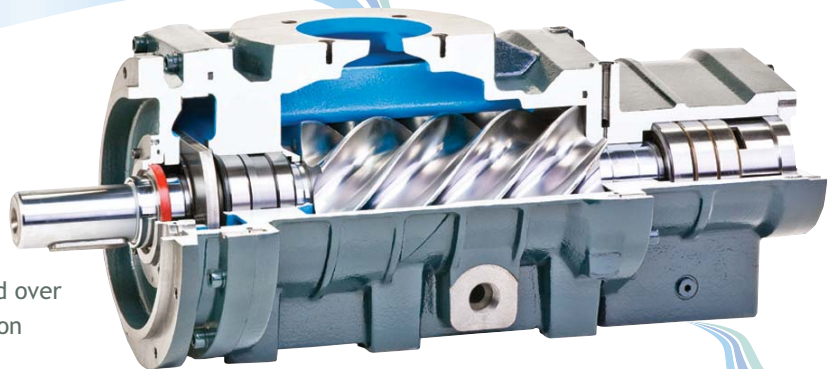
- Stabilizes the dew point for better air quality
- Dryer air improves tool/equipment operation
- Reduces corrosion, prolongs tool/equipment life
- Allows applications that require better air quality
- Single point installation
- Environmentally friendly refrigerant R134a increases the efficiency, and reduces global warming
- Integrated dryer bypass is standard

### PRECISION-BUILT AIREND

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- Proven in thousands of compressors the world over
- FS exclusive profile for low power consumption
- Low pressure loss design for high efficiency
- Vibration-free operation for long life
- Leak-free design with O-ring seals
- Double lip shaft seal for added security

*Precision-crafted  
FSC Airend*





## AIMS PLUS CONTROLLER

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*AIMS Plus Controller Display*



### Reliability:

- Dual level protection with warning/alarm and shutdown
- Frost protection to +32° F
- IP54 electrics

### User Friendly:

- User friendly interface with informative menu structure
- Real time clock
- Auto start up and shutdown
- Emergency stop
- Extra temperature and pressure inputs for user defined services

### Communication:

- RS485 communication port
- Connection with your computer for software update
- Remote Start/Stop

### Service Friendly:

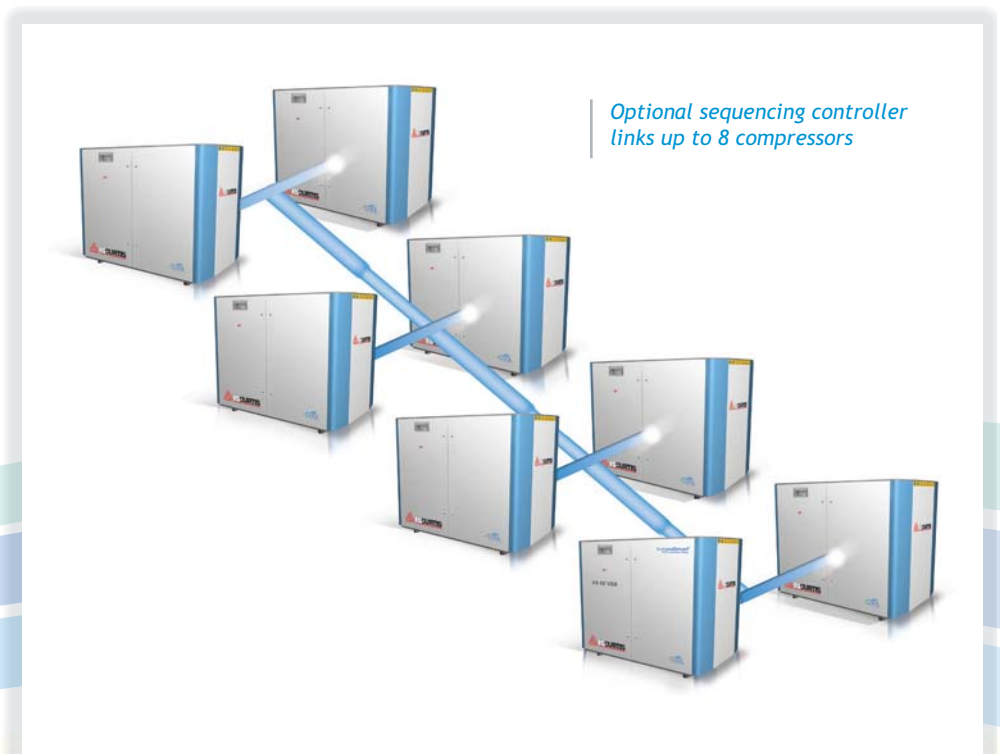
- Service timers for optimized maintenance
- Automatic or manual lead/lag control
- Fault log for incident

## COMPRESSED AIR SYSTEM MANAGEMENT

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- Compressor sequencing
- Web based network interfacing
- Site system integration
- Modbus communication

Contact FS-Curtis to review your specific system requirements



# SERVICE and TECHNICAL DATA

## SERVICE and TECHNICAL DATA

Model	Capacity FAD* (cfm)						Motor Power HP	Sound Level** dB(A)	Dimensions	Weight (lbs)	
	100 psi		125 psi		150 psi				L x W x H inches	w/o dryer	with dryer
	MIN	MAX	MIN	MAX	MIN	MAX					
GS20	32	91	30	84	29	74	20	66	61.0 x 34.6 x 62.6	1620	1816
GS25	32	113	30	106	29	95	25	66	61.0 x 34.6 x 62.6	1620	1816
GS30	32	131	30	124	29	116	30	66	61.0 x 34.6 x 62.6	1620	1816
GS40	60	190	56	180	50	162	40	70	69.0 x 37.0 x 68.5	2300	2640
GS50	60	236	56	220	50	200	50	70	69.0 x 37.0 x 68.5	2300	2640

\* Capacity (FAD) measured in accordance with ISO 1217, Ed 3, Attachment C 1996, Ref. condition: Dry air, suction pressure 1 bar,

\*\* Sound Level in accordance with ISO 2151, edition 2004 with a tolerance of 3 dB(A). Due to continuous product development at FS-Curtis, design and specifications are subject to change without notice.

Please contact factory for 175 psi operation

### STANDARD FEATURES

- Energy savings VSD drive (Demand Smart™)
- Precision manufactured FSC airend
- Direct drive airend (no gears)
- Integrated suction valve assembly
- High efficiency TEFC motors (inverter rated)
- Features an integrated discharge valve
- Features eCOOL® Intelligent Cooling Technology
- Premium filtration system
- AIMS Plus controller
- Advanced oil separation system
- High performance synthetic lubricant oil
- Integrated oil thermostat for increased efficiency and leak free design
- Washable cabinet air filters
- Heavy duty air intake filter
- Vibration damped sub-frame
- Air cooled oil cooler and aftercooler
- Enclosure cabinet includes laminated sound insulation lining
- Quiet centrifugal cooling fan
- High quality stainless steel tubing and hydraulic fittings for leak proof design
- Noise isolator pads under separator tank



### OPTIONAL EQUIPMENT

- Integrated refrigerated dryer with dryer bypass system
- Optional moisture separator
- Zero air loss drains
- Food grade lubricant

## FS-Curtis — THE BEST PARTNER FOR YOUR AIR POWER NEEDS

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When you choose FS-Curtis you get more than just an air compressor equipment manufacturer, you get a highly trained support team of distributors. We provide our distributors with the highest quality products, up-to-the-minute service manual data, and extensive training available in the field and at our St. Louis based headquarters. FS-Curtis oversees and controls the production of our compressors from design to assembly using ISO 9001:2008 and ISO 14001:2004 standards. Authorized FS-Curtis distributors use genuine FS-Curtis parts, lubricants, and filter kits to maximize the service life of your equipment.



*With FS-Curtis, you always have easy access to whatever parts you need to keep your line up and running.*

### USE ONLY GENUINE FS-Curtis PARTS

The success of your business depends on minimizing downtime, and the key to minimizing downtime is the ready availability of reliable replacement consumable parts.

At FS-Curtis, we manufacture our own replacement parts, so quality is never an issue. We also have a nationwide service centers network, each of which carries a full range of quality FS-Curtis parts. So there's never any added downtime waiting for parts to come in.

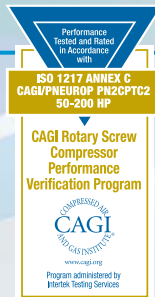
Maintaining this large, readily available inventory also offers another advantage. It allows us to keep the prices of our genuine FS-Curtis parts more affordable than our competitors.

So when you partner with FS-Curtis, you should know that you can count on us to do whatever we can to help you maximize your productivity. After all, that's what partners are for.

**Genuine. FS-Curtis.**



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Genuine. FS-Curtis.

Improvements and research are continuous at FS-Curtis. Specifications may change without notice.

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